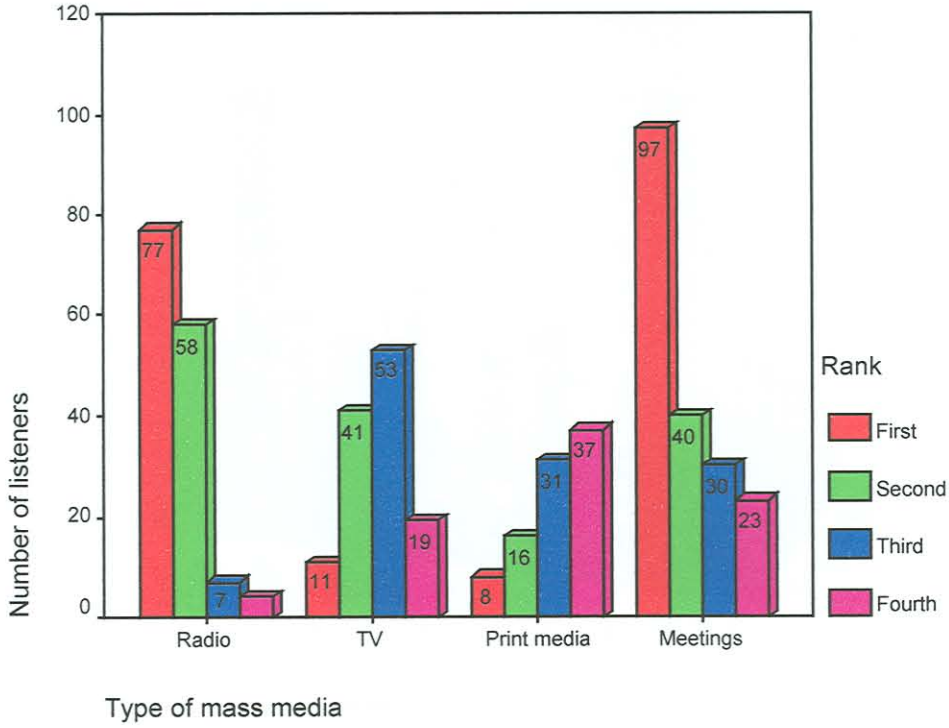


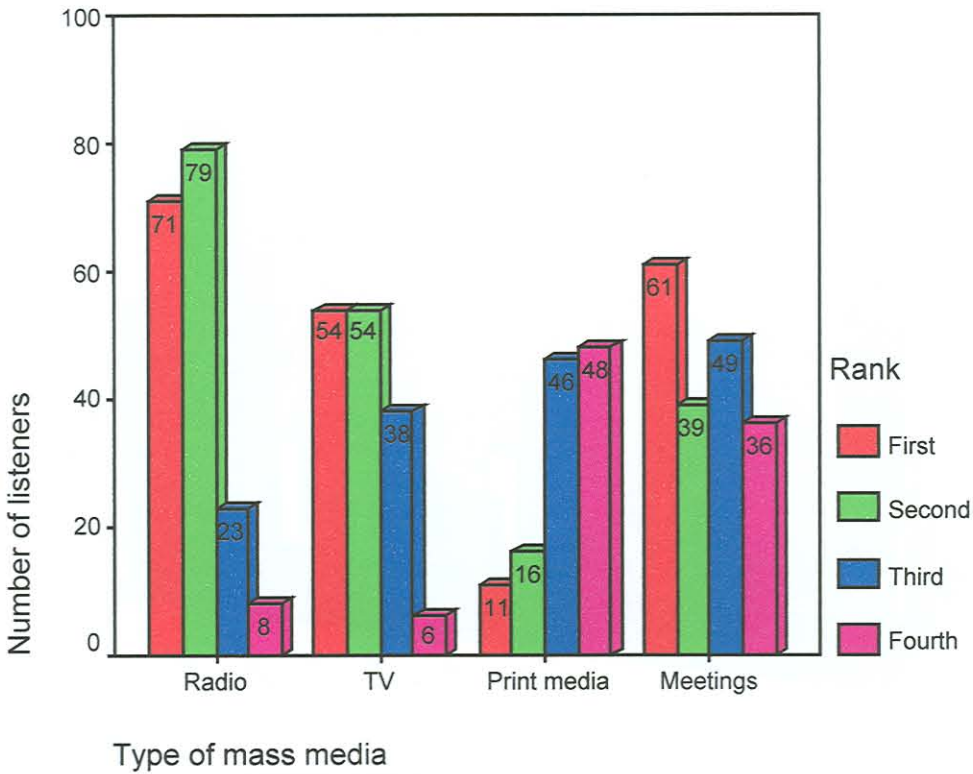
**Appendix 5.1**

**Rank order position of different media by maize farmers**



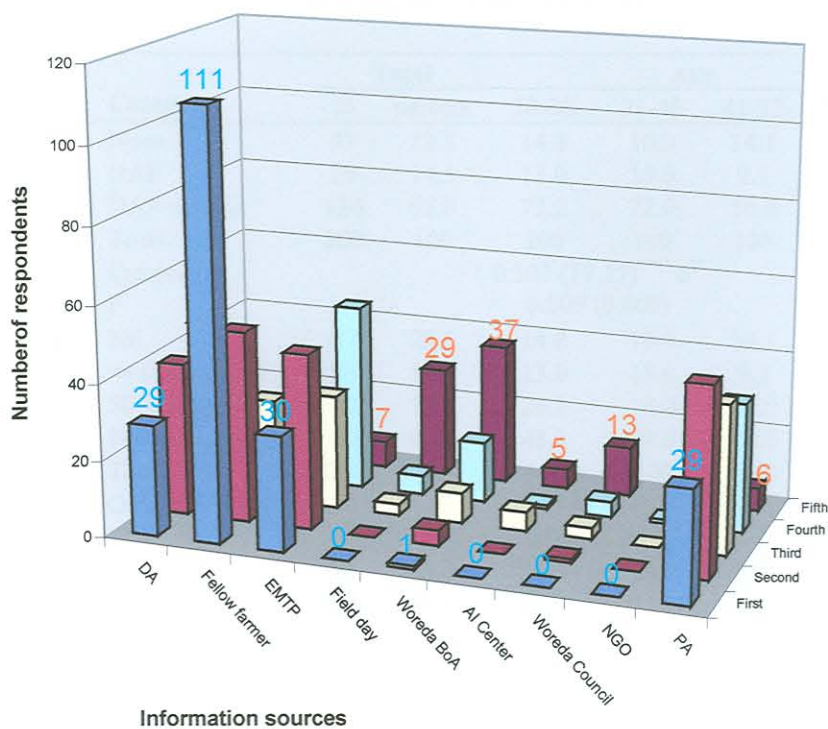
**Appendix 5.2**

**Rank order position of different media by dairy farmers**



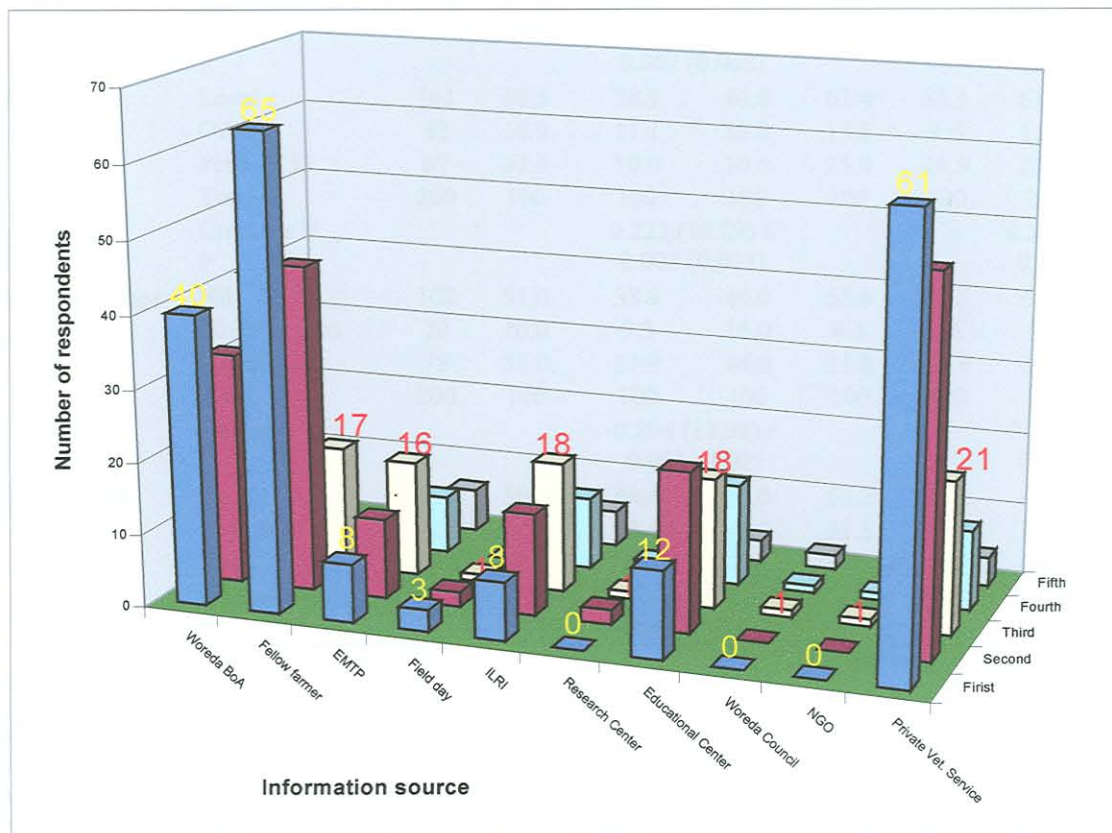
Appendix 5.3

Rank order position of different information sources by maize farmers



Appendix 5.4

Rank order position of different information sources by dairy farmers



## APPENDIX 5.5 The percentage distribution of maize farmers according to age, education and adoption behavior

Practice	Category	Total		Age				Education		
		N	percent	18-30	31-40	41-52	55-85	I*	P**	S***
Fertilizer type	None	47	23.5	14.8	10.0	34.1	36.5	34.7	15.7	6.3
	DAP	29	14.5	13.0	18.0	9.1	17.3	16.3	15.7	6.3
	DAP+UREA	124	62.0	72.2	72.0	56.8	46.2	49.0	68.6	87.5
	Total	200	100	100	100	100	100	100	100	100
	Cramer's V			0.207 (17.17)**** 6 <sup>D</sup>				0.220 (19.40) 4		
P			0.009 (0.009)				0.001 (0.000)			
Fertilizer rate	Nil	47	23.5	14.8	10.0	34.1	36.5	34.7	15.7	6.3
	<=100 kg DAP	29	14.5	13.0	18.0	9.1	17.3	16.3	15.7	6.3
	50-100 kg each	32	16.0	24.1	14.0	18.2	7.7	12.2	21.4	15.6
	100 kg each	92	46.0	48.1	58.0	38.6	38.5	36.7	47.1	71.9
	Total	200	100	100	100	100	100	100	100	100
Gamma			-0.218 (20.63) 9				0.395 (21.54) 6			
P			0.008 (0.014)				0.000 (0.001)			
Measurement	Nil +drill	87	43.5	33.3	26.0	54.5	61.5	52.0	40.0	25.0
	Estimation	113	56.5	66.7	74.0	45.5	38.5	48.0	60.0	75.0
	Total	200	100	100	100	100	100	100	100	100
	Cramer's V			0.291 (17.57) 3				0.196 (7.71) 2		
P			0.001 (0.001)				0.021 (0.021)			
Method	Nil	57	28.5	14.8	16.0	43.2	42.3	37.8	24.3	9.4
	With fertilizer	76	38.0	48.1	36.0	34.1	32.7	34.7	44.3	34.4
	Besides	67	33.5	37.0	48.0	22.7	25.0	27.6	31.4	56.3
	Total	200	100	100	100	100	100	100	100	100
Cramer's V			0.230 (21.16) 6				0.192 (14.68) 4			
P			0.002 (0.002)				0.005 (0.005)			
Variety	Local	101	50.5	38.9	40.0	61.4	63.5	61.2	50.0	18.8
	Others	32	16.0	11.1	30.0	13.6	9.6	11.2	20.0	21.9
	PHB-3253	67	33.5	50.0	30.0	25.0	26.9	27.6	30.0	59.4
	Total	200	100	100	100	100	100	100	100	100
	Cramer's V			0.223 (19.89) 6				0.219 (19.09) 4		
P			0.003 (0.003)				0.001 (0.001)			
Area coverage	Nil	102	51.0	38.9	40.0	63.6	63.5	61.2	50.0	21.9
	50-75percent	20	10.0	9.3	16.0	4.5	9.6	9.2	11.4	9.4
	>75percent	78	39.0	51.9	44.0	31.8	26.9	29.6	38.6	68.8
	Total	200	100	100	100	100	100	100	100	100
	Gamma			-0.294 (13.98) 6				0.389 (17.05) 4		
P			0.001 (.030)				0.001 (0.002)			
Seed source	Local	118	59.0	44.4	52.0	68.2	73.1	68.4	57.1	34.4
	Certified	82	41.0	55.6	48.0	31.8	26.9	31.6	42.9	65.6
	Total	200	100	100	100	100	100	100	100	100
	Cramer's V			0.240 (11.53) 3				0.242(11.67) 2		
P			0.009 (0.009)				0.003 (0.003)			

\* Illiterate

\*\* Primary

\*\*\* Secondary

\*\*\*\* Numbers in brackets are Chi-square and p values

<sup>D</sup> Numbers next to Chi-square value stands for degree of freedom

**Appendix 5.5 continued...**

Practice	Category	Total		Age				Education		
		N	percent	18-30	31-40	41-52	55-85	I	P	S
Plant spacing	Broadcast	106	53.0	48.1	34.0	61.4	69.2	60.2	48.6	40.6
	25-1seed/hill	94	47.0	51.9	66.0	38.6	30.8	39.8	51.4	59.4
	Total	200	100	100	100	100	100	100.0	100.0	100.0
	Gamma			-0.291 (14.49) 3				0.257 (4.56) 2		
	P			0.004 (0.002)				0.031 (0.102)		
Raw spacing	<50cm-1seed/hill	161	80.5	88.9	60.0	84.1	88.5	84.7	84.3	59.4
	50-80 cm-2seed/hill	39	19.5	11.1	40.0	15.9	11.5	15.3	15.7	40.6
	Total	200	100	100	100	100	100	100	100	100
	Gamma			-0.096 (18.27) 3				0.333 (10.83) 2		
	P			0.398 (0.000)				0.038 (0.004)		

## Appendix 5.6 The percentage distribution of maize farmers according to farm size, media and agro ecology, and adoption behavior

Practice	Category	Total		Farm size			Media		Agro ecology	
		N	percent	Small	Medium	Better-off	Low	High	Low	Middle
Fertilizer type	None	47	23.5	26.0	17.0	32.1	32.0	9.3	33.0	14.0
	DAP	29	14.5	6.0	17.0	17.9	20.0	5.3	19.0	10.0
	DAP+UREA	124	62.0	68.0	66.0	50.0	48.0	85.3	48.0	76.0
	Total	200	100	100	100	100	100	100	100	100
	Cramer's V			0.148 (8.76) <sup>4</sup> D			0.372(27.7) 2		0.290 (16.8) 2	
P			0.067 (0.067)			0.000(0.000)		0.000 (0.000)		
Fertilizer rate	Nil	47	23.5	26.0	17.0	32.1	32.0	9.3	33.0	14.0
	<=100 kg DAP	29	14.5	6.0	17.0	17.9	20.0	5.3	19.0	10.0
	50-100 kg each	32	16.0	4.0	21.3	17.9	19.2	10.7	7.0	25.0
	100 kg each	92	46.0	64.0	44.7	32.1	28.8	74.7	41.0	51.0
	Total	200	100	100	100	100	100	100	100	100
Gamma			-0.252 (19.08) 6			.669(40.77)4		0.310 (21.69) 4		
P			0.010 (0.004)			0.000 (0.000)		0.004 (0.000)		
Measurement	Nil +drill	87	43.5	32.0	37.2	64.3	54.4	25.3	69.0	18.0
	Estimation	113	56.5	68.0	62.8	35.7	45.6	74.7	31.0	82.0
	Total	200	100	100	100	100	100	100	100	100
	Gamma,			-0.396(14.04) 2			.557(16.11)1		.820(52.91) 1	
P			0.000 (0.001)			0.000 (0.000)		0.000 (0.000)		
Method	Nil	57	28.5	28.0	22.3	39.3	40.0	9.3	43.0	14.0
	With fertilizer	76	38.0	10.0	52.1	39.3	45.6	25.3	28.0	48.0
	Besides	67	33.5	62.0	25.5	21.4	14.4	65.3	29.0	38.0
	Total	200	100	100	100	100	100	100	100	100
	Cramer's V			0.296 (35.16) 4			.533 (56.8) 2		0.326 (22.23) 2	
P			0.000 (0.000)			0.000 (0.000)		0.000 (0.000)		
Variety	Local	101	50.5	30.0	53.2	64.3	65.6	25.3	69.0	32.0
	Others	32	16.0	34.0	8.5	12.5	8.0	29.3	13.0	19.0
	PHB-3253	67	33.5	36.0	38.3	23.2	26.4	45.3	18.0	49.0
	Total	200	100	100	100	100	100	100	100	100
	Cramer's V			0.239 (22.76) 4			.409 (33.4) 2		0.381 (29.02) 2	
P			0.000 (0.000)			0.000 (0.000)		0.000 (0.000)		
Area coverage	Nil	102	51.0	30.0	53.2	66.1	65.6	26.7	70.0	32.0
	50-75percent	20	10.0	12.0	11.7	5.4	8.8	12.0	9.0	11.0
	>75percent	78	39.0	58.0	35.1	28.6	25.6	61.3	21.0	57.0
	Total	200	100	100	100	100	100	100	100	100
	Gamma			-0.373 (15.14) 2			.629(29.76) 2		0.631 (30.97) 2	
P			0.000 (0.004)			0.000 (0.000)		0.000 (0.000)		
Seed source	Local	118	59.0	40.0	63.8	67.9	74.4	33.3	75.0	43.0
	Certified	82	41.0	60.0	36.2	32.1	25.6	66.7	25.0	57.0
	Total	200	100	100	100	100	100	100	100	100
	Cramer's V, Phi <sup>a</sup>			0.226 (10.18) 2			.404(32.68) 1		0.325 (21.66) 1	
P			0.006 (0.006)			0.000 (0.000)		0.000 (0.000)		

\* Numbers in brackets represent Chi-square and p values

<sup>D</sup> Numbers next to Chi-square values represent degree of freedom

<sup>a</sup> Phi coefficient is the equivalent of Cramer's V used for all computations with 1 degree of freedom

Appendix 5.6 Continued...

Practice	Category	Total		Farm size			Media		Agro ecology	
		N	percent	Small	Medium	Better-off	Low	High	Low	Middle
Plant spacing	Broadcast	106	53.0	44.0	42.6	78.6	60.8	40.0	83.0	23.0
	25-1seed/hill	94	47.0	56.0	57.4	21.4	39.2	60.0	17.0	77.0
	Total	200	100	100	100	100	100	100	100	100
Raw spacing	Gamma			-0.420 (20.44) 2			.399 (8.14) 2		0.885 (72.26) 2	
	P			0.000 (0.000)			0.004 (0.004)		0.000 (0.000)	
	<50cm-1seed/hill	161	80.5	54.0	89.4	89.3	94.4	57.3	87.0	74.0
Raw spacing	50-80 cm-2seed/hill	39	19.5	46.0	10.6	10.7	5.6	42.7	13.0	26.0
	Total	200	100	100	100	100	100	100	100	100
	Gamma			-0.586 (29.8) 2			.852(41.03) 1		0.403 (5.30) 1	
Raw spacing	P			0.000 (0.000)			0.000 (0.000)		0.019 (0.020)	

Numbers in brackets designate Chi-square and p-values.  
Numbers next to Chi-square values designate degree of freedom.  
The coefficient is the equivalent of Cramer's V used for all computations with 1-degree of freedom.

## Appendix 5.7 The percentage distribution of maize farmers according to their extension contact, attitudinal modernity, farming experience, and adoption behavior

Practice	Category	Total		Extension		Modernity			Farming experience		
		N	percent	Low	High	Low	Medium	High	Short	Medium	Long
Fertilizer type	None	47	23.5	26.4	10.8	20.3	27.8	22.2	13.8	20.7	33.8
	DAP	29	14.5	17.8		18.9	15.3	7.4	12.3	15.5	15.6
	DAP+UREA	124	62.0	55.8	89.2	60.8	56.9	70.4	73.8	63.8	50.6
	Total	200	100	100	100	100	100	100	100	100	100
	Cramer's V			.275 (15.11)*	2 <sup>D</sup>	.109 (4.75)	4		0.155 (9.65)	4	
P			0.001 (0.001)		0.314 (0.314)			0.047 (0.047)			
Fertilizer rate	Nil	47	23.5	26.4	10.8	20.3	27.8	22.2	13.8	20.7	33.8
	<=100 kg DAP	29	14.5	17.8		18.9	15.3	7.4	12.3	15.5	15.6
	50-100 kg each	32	16.0	19.0	2.7	24.3	16.7	3.7	23.1	15.5	10.4
	100 kg each	92	46.0	36.8	86.5	36.5	40.3	66.7	50.8	48.3	40.3
	Total	200	100	100	100	100	100	100	100	100	100
Gamma			.724 (30.89)	3	.173 (19.17)	6		-0.213 (11.04)	6		
P			0.000 (0.000)		0.058 (0.004)			0.017 (0.087)			
Measurement	Nil +drill	87	43.5	49.7	16.2	45.9	47.2	35.2	29.2	46.6	53.2
	Estimation	113	56.5	50.3	83.8	54.1	52.8	64.8	70.8	53.4	46.8
	Total	200	100	100	100	100	100	100	100	100	100
	Gamma			.692 (13.75)	1	.127 (2.1)	2		-0.324 (8.58)	2	
P			0.000 (0.000)		0.270 (0.349)			0.003 (0.014)			
Method	Nil	57	28.5	32.5	10.8	28.4	31.9	24.1	13.8	31.0	39.0
	With fertilizer	76	38.0	46.0	2.7	52.7	38.9	16.7	41.5	37.9	35.1
	Besides	67	33.5	21.5	86.5	18.9	29.2	59.3	44.6	31.0	26.0
	Total	200	100	100	100	100	100	100	100	100	100
	Cramer's V			.538 (57.92)	2	.261 (27.16)	4		0.174 (12.18)	4	
P			0.000 (0.000)		0.000 (0.000)			0.016 (0.016)			
Variety	Local	101	50.5	58.3	16.2	55.4	58.3	33.3	38.5	51.7	59.7
	Others	32	16.0	9.8	43.2	9.5	18.1	22.2	15.4	24.1	10.4
	PHB-3253	67	33.5	31.9	40.5	35.1	23.6	44.4	46.2	24.1	29.9
	Total	200	100	100	100	100	100	100	100	100	100
	Cramer's V			.402 (32.3)	2	.173 (11.94)	4		0.174 (12.04)	4	
P			0.000 (0.000)		0.000 (0.018)			0.017 (0.017)			
Area coverage	Nil	102	51.0	58.9	16.2	55.4	58.3	35.2	38.5	53.4	59.7
	50-75percent	20	10.0	8.6	16.2	12.2	6.9	11.1	9.2	13.8	7.8
	>75percent	78	39.0	32.5	67.6	32.4	34.7	53.7	52.3	32.8	32.5
	Total	200	100	100	100	100	100	100	100	100	100
	Gamma			.644 (22.02)	2	.228 (8.9)	4		-0.262 (8.85)	4	
P			0.000 (0.000)		0.024 (0.063)			0.011 (0.065)			
Seed source	Local	118	59.0	66.9	24.3	68.9	61.1	42.6	44.6	63.8	67.5
	Certified	82	41.0	33.1	75.7	31.1	38.9	57.4	55.4	36.2	32.5
	Total	200	100	100	100	100	100	100	100	100	100
	Cramer's V, Phi**			.336 (22.57)	1	.214 (9.15)	2		0.205 (8.42)	2	
P			0.000 (0.000)		0.000 (0.010)			0.015 (0.015)			

\* Numbers in brackets designate Chi-square and p values

<sup>D</sup> Numbers next to Chi-square values designate degree of freedom

\*\* Phi coefficient is the equivalent of Cramer's V used for all computations with 1 degree of freedom

**Appendix 5.7 Continued...**

Practice	Category	Total		Extension		Modernity			Farming experience		
		N	Percent	Low	High	Low	Medium	High	Short	Medium	Long
Plant spacing	Broadcast	106	53.0	57.1	35.1	47.3	58.3	53.7	44.6	51.7	61.0
	25-1seed/hill	94	47.0	42.9	64.9	52.7	41.7	46.3	55.4	48.3	39.0
	Total	200	100	100	100	100	100	100	100	100	100
	Gamma			0.421 (5.82) 1		-0.100 (1.80) 2			-0.226 (3.87) 2		
	P			0.016 (0.016)		0.387 (0.407)			0.047 (0.144)		
Raw spacing	<50cm-1seed/hill	161	80.5	89.6	40.5	91.9	86.1	57.4	78.5	77.6	84.4
	50-80 cm-2seed/hill	39	19.5	10.4	59.5	8.1	13.9	42.6	21.5	22.4	15.6
	Total	200	100	100	100	100	100	100	100	100	100
	Gamma			0.853 (43.18) 1		0.617 (25.91) 2			-0.136 (1.24) 2		
	P			0.000 (0.000)		0.000 (0.000)			0.339 (0.539)		



## Appendix 5.8 The percentage distribution of dairy farmers according to age, education, gender, and farm size and adoption behavior

Practice	Category	Total		Age				Education*				Gender		Farm size		
		N	Percent	12-38	39-45	46-57	58-80	I	P	S	T	M	F	Small	Medium	Better-off
<b>No. of cross breeds</b>	<75percent	37	18.5	24.5	23.4	16.7	9.6	33.3	20.7	16.8	5.4	17.5	23.5	25.4	18.2	11.9
	>75percent	163	81.5	75.5	76.6	83.3	90.4	66.7	79.3	83.2	94.6	82.5	76.5	74.6	81.8	88.1
	Total	200	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	G/Phi			0.286 (4.86)** 3				0.438 (10.17) 3				-.059 (0.69) 1		.295 (4.02) 2		
	P			0.027 (0.183)				0.002 (0.017)				0.407 (0.407)		.043 ((0.134)		
<b>Cross breeds ≥ 50percent</b>	<75percent	40	20	28.3	25.5	10.4	15.4	25.6	20.7	20.0	13.5	19.3	23.5	28.4	22.7	9.0
	>75percent	160	80	71.7	74.5	89.6	84.6	74.4	79.3	80.0	86.5	80.7	76.5	71.6	77.3	91.0
	Total	200	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	G/Phi***			0.287 (6.63) 3				0.175 (1.76) 3				-.040 (0.31) 1		.397 (8.34) 2		
	P			0.036 (0.085)				0.207 (0.624)				0.572 (.572)		.003 (0.015)		
<b>Cross breeds ≥ 62.5percent</b>	1/4 of herd	45	22.5	26.4	21.3	20.8	21.2	33.3	20.7	25.3	5.4	22.3	23.5	28.4	21.2	17.9
	Half	39	19.5	17.0	17.0	22.9	21.2	17.9	17.2	24.2	10.8	21.1	11.8	22.4	15.2	20.9
	3/4 of herd	19	9.5	5.7	12.8	8.3	11.5	10.3	20.7	7.4	5.4	10.8	2.9	10.4	7.6	10.4
	About all	97	48.5	50.9	48.9	47.9	46.2	38.5	41.4	43.2	78.4	45.8	61.8	38.8	56.1	50.7
	Total	200	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	G/C <sup>2</sup> V			-0.007 (2.90) 9				-0.007 (23.28) 9				.152 (4.62) 3		.146 (5.20) 6		
	P			0.938 (0.966)				0.286 (0.006)				0.202 (0.202)		.107 (0.516)		
	<b>Feed trough</b>	No	28	14.0	9.4	12.8	12.5	21.2	20.5	10.3	10.5	18.9	15.1	8.8	23.9	10.6
Poor	82	41.0	52.8	34.0	41.7	34.6	41.0	51.7	40.0	35.1	40.4	44.1	47.8	48.5	26.9	
Moderate	57	28.5	26.4	31.9	27.1	28.8	28.2	24.1	32.6	21.6	27.7	32.4	19.4	27.3	38.8	
Good	33	16.5	11.3	21.3	18.8	15.4	10.3	13.8	16.8	24.3	16.9	14.7	9.0	13.6	26.9	
Total	200	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
G/C <sup>2</sup> V			-0.011 (7.10) 9				0.110 (7.78) 9				.077 (1.17) 3		0.406 (23.65) 6			
P			0.887 (0.563)				0.230 (0.548)				.759 (0.759)		0.000 (0.001)			

\* I= Illiterate, P= Primary, S= Secondary, T= Tertiary

\*\* Numbers in brackets designate Chi-square and p values and numbers next to brackets denote degree of freedom

\*\*\* Phi coefficient is the equivalent of Cramer's V used for all computations with 1 degree of freedom

Appendix 5.8 Continued...

Practice	Category	Total		Age				Education				Gender		Farm size			
		N	Percent	12-38	39-45	46-57	58-80	I	P	S	T	M	F	Small	Medium	Bigger	
<b>Gutter</b>	No	31	15.5	13.2	14.9	22.9	11.5	17.9	34.5	11.6	8.1	16.3	11.8	25.4	10.6	10.4	
	Poor	99	49.5	54.7	40.4	43.8	57.7	61.5	34.5	50.5	45.9	48.8	52.9	53.7	53.0	41.8	
	Moderate	70	35	32.1	44.7	33.3	30.8	20.5	31.0	37.9	45.9	34.9	35.3	20.9	36.4	47.8	
	Total	200	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	G/C'V				-0.035 (6.20) 6				0.269 (15.68) 6				.048 (0.46) 2		.353 (14.51) 4		
	P				0.681 (0.400)				0.003 (0.016)				.791 (0.791)		.000 (0.006)		
<b>Floor</b>	Poor	104	52.0	52.8	51.1	50.0	53.8	64.1	55.2	46.3	51.4	49.4	64.7	65.7	54.5	35.8	
	Moderate	66	33.0	34.0	34.0	31.3	32.7	25.6	27.6	37.9	32.4	34.3	26.5	28.4	28.8	41.8	
	Good	30	15.0	13.2	14.9	18.8	13.5	10.3	17.2	15.8	16.2	16.3	8.8	6.0	16.7	22.4	
	Total	200	100.0	100	100	100	100	100	100	100	100	100	100	100	100	100	
	G/C'V				0.001 (0.81) 6				0.129 (4.10) 6				.119 (2.84) 2		.362 (14.43) 4		
	P				0.990 (0.992)				0.186 (0.664)				.241 (0.241)		.000 (0.006)		
<b>Roof and side wall</b>	Poor	102	51	54.7	44.7	52.1	51.9	64.1	48.3	47.4	48.6	48.2	64.7	61.2	53.0	38.8	
	Moderate	70	35	34.0	34.0	37.5	34.6	25.6	41.4	37.9	32.4	38.0	20.6	29.9	31.8	43.3	
	Good	28	14	11.3	21.3	10.4	13.5	10.3	10.3	14.7	18.9	13.9	14.7	9.0	15.2	17.9	
	Total	200	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	G/C'V				0.001 (3.15) 6				0.146 (4.60) 6				.141 (3.95) 2		.260 (7.40) 4		
	P				0.994 (0.790)				0.140 (0.600)				.138 (0.138)		.007 (0.116)		
<b>Stall</b>	No	132	66.0	62.3	57.4	72.9	71.2	61.5	82.8	63.2	64.9	69.3	50.0	71.6	65.2	61.2	
	Poor	43	21.5	18.9	25.5	20.8	21.2	25.6	6.9	25.3	18.9	18.1	38.2	19.4	22.7	22.4	
	Moderate	25	12.5	18.9	17.0	6.3	7.7	12.8	10.3	11.6	16.2	12.7	11.8	9.0	12.1	16.4	
	Total	200	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	G/C'V				-0.179 (6.68) 6				0.054 (5.99) 6				.186 (6.94) 2		.155 (2.28) 4		
	P				0.091 (0.352)				0.626 (0.425)				.031 (0.031)		.159 (0.685)		
<b>Ecto parasite</b>	No	102	51.0	41.5	48.9	58.3	55.8	53.8	51.7	56.8	32.4	53.6	38.2	46.3	60.6	46.3	
	100percent	98	49.0	58.5	51.1	41.7	44.2	46.2	48.3	43.2	67.6	46.4	61.8	53.7	39.4	53.7	
	Total	200	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	G/Phi				-0.175 (3.50) 3				0.166 (6.53) 3				.116 (2.67) 1		.000 (3.64) 2		
	P				0.092 (0.321)				0.133 (0.088)				.102 (0.012)		1.000 (0.162)		

**Appendix 5.8 Continued...**

Practice	Category	Total		Age				Education				Gender		Farm size			
		N	Percent	12-38	39-45	46-57	58-80	I	P	S	T	M	F	Small	Medium	Bigger	
<b>Indo Parasite</b>	Not at all	54	27.0	26.4	25.5	33.3	23.1	41.0	34.5	24.2	13.5	27.1	26.5	32.8	27.3	20.9	
	<100percent	25	12.5	11.3	12.8	10.4	15.4	15.4	6.9	17.9		12.0	14.7	10.4	16.7	10.4	
	100percent	121	60.5	62.3	61.7	56.3	61.5	43.6	58.6	57.9	86.5	60.8	58.8	56.7	56.1	68.7	
	Total	200	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	G/C'V			-0.012 (1.82) 6				0.363 (20.0) 6				.030 (.18) 2		0.165 (4.25) 4			
P			0.898 (0.936)				0.000 (0.003)				.913 (.913)		0.119 (0.373)				
<b>Byproduct</b>	Sometimes	29	14.5	15.1	12.8	16.7	13.5	20.5	13.8	13.7	10.8	13.9	17.6	17.9	12.1	13.4	
	Regularly (Some)	140	70.0	66.0	78.7	62.5	73.1	76.9	69.0	69.5	64.9	69.3	73.5	67.2	69.7	73.1	
	Regularly (All)	31	15.5	18.9	8.5	20.8	13.5	2.6	17.2	16.8	24.3	16.9	8.8	14.9	18.2	13.4	
	Total	200	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	G/C'V			-0.013 (4.28) 6				0.261 (8.02) 6				.087 (1.53) 2		0.035 (1.52) 4			
P			0.903 (0.639)				0.015 (0.236)				.465 (0.465)		0.759 (0.822)				
<b>Processed feed</b>	Sometimes	36	18.0	20.8	14.9	16.7	19.2	25.6	20.7	17.9	8.1	15.7	29.4	20.9	22.7	10.4	
	Regularly (Some)	101	50.5	47.2	57.4	41.7	55.8	59.0	41.4	50.5	48.6	50.6	50.0	55.2	43.9	52.2	
	Regularly (Most)	63	31.5	32.1	27.7	41.7	25.0	15.4	37.9	31.6	43.2	33.7	20.6	23.9	33.3	37.3	
	Total	200	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	G/C'V			-0.014 (4.66) 6				0.244 (9.67) 6				.150 (4.51) 2		0.194 (6.18) 4			
P			0.880 (0.588)				0.007 (0.139)				.105 (0.105)		0.035 (0.186)				
<b>Legumes</b>	Not at all	122	61.0	50.9	63.8	68.8	61.5	59.0	65.5	63.2	54.1	65.1	41.2	68.7	59.1	55.2	
	Sometimes	54	27.0	30.2	23.4	27.1	26.9	30.8	31.0	25.3	24.3	22.3	50.0	22.4	28.8	29.9	
	Regularly (Some)	24	12.0	18.9	12.8	4.2	11.5	10.3	3.4	11.6	21.6	12.7	8.8	9.0	12.1	14.9	
	Total	200	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	G/C'V			-0.138 (6.40) 6				0.088 (5.80) 6				.235 (11.09) 2		0.174 (2.85) 4			
P			0.171 (0.379)				0.410 (0.445)				.004 (0.004)		0.098 (0.583)				

## Appendix 5.9 The percentage distribution of dairy farmers according to farming experience, media exposure, attitudinal modernity, organizational participation and adoption behavior

Practice	Category	Total		Farming experience			Media		Modernity			Organization	
		N	Percent	Short	Medium	Long	Low	High	Low	Medium	High	Low	High
<b>No. of cross breeds</b>	<75percent	37	18.5	27.9	16.4	10.8	27.3	14.2	24.6	26.8	5.6	19.1	14.8
	>75percent	163	81.5	72.1	83.6	89.2	72.7	85.8	75.4	73.2	94.4	80.9	85.2
	Total	200	100	100	100	100	100	100	100	100	100	100	100
	Gamma			0.375 (6.79) <sup>*</sup> 2			.388 (5.02) 1		0.426 (12.60) 2			NC <sup>**</sup>	
P			0.010 (0.034)			.037 (0.025)		0.001 (0.002)					
<b>Cross breeds ≥ 50percent</b>	<75percent	40	20.0	30.9	13.4	15.4	25.8	17.2	24.6	23.9	12.5	20.8	14.8
	>75percent	160	80.0	69.1	86.6	84.6	74.2	82.8	75.4	76.1	87.5	79.2	85.2
	Total	200	100	100	100	100	100	100	100	100	100	100	100
	Gamma			0.321 (7.71) 2			.252 (2.04) 2		0.256 (3.96) 2			0.203 (0.52) 1	
P			0.030 (0.021)			.173 (0.153)		0.062 (0.138)			0.428 (0.469)		
<b>Cross breeds ≥ 62.5percent</b>	1/4 of herd	45	22.5	33.8	19.4	13.8	28.8	19.4	19.3	26.8	20.8	23.7	14.8
	Half	39	19.5	11.8	26.9	20.0	28.8	14.9	15.8	26.8	15.3	20.2	14.8
	3/4 of herd	19	9.5	8.8	9.0	10.8	12.1	8.2	14.0	7.0	8.3	9.8	7.4
	About all	97	48.5	45.6	44.8	55.4	30.3	57.5	50.9	39.4	55.6	46.2	63.0
	Total	200	100	100	100	100	100	100	100	100	100	100	100
	Gamma			0.175 (11.39) 6			.369 (13.52) 3		0.034 (7.70) 6			0.276 (2.66) 3	
	P			0.061 (0.077)			.001 (0.004)		0.709 (0.261)			0.104 (0.447)	
<b>Feed trough</b>	No	28	14.0	16.2	11.9	13.8	21.2	10.4	5.3	18.3	16.7	12.7	22.2
	Poor	82	41.0	42.6	38.8	41.5	39.4	41.8	54.4	29.6	41.7	41.6	37.0
	Moderate	57	28.5	25.0	35.8	24.6	27.3	29.1	22.8	39.4	22.2	30.1	18.5
	Good	33	16.5	16.2	13.4	20.0	12.1	18.7	17.5	12.7	19.4	15.6	22.2
	Total	200	100	100	100	100	100	100	100	100	100	100	100
	Gamma			0.052 (3.33) 6			0.206 (4.91) 3		-0.040 (14.84) 3			NC	
	P			0.573 (0.767)			0.076 (0.178)		0.646 (0.022)				

\* Numbers in brackets designate Chi-square and p values, Numbers next to the Chi-square value represent degree of freedom

\*\* Not computed

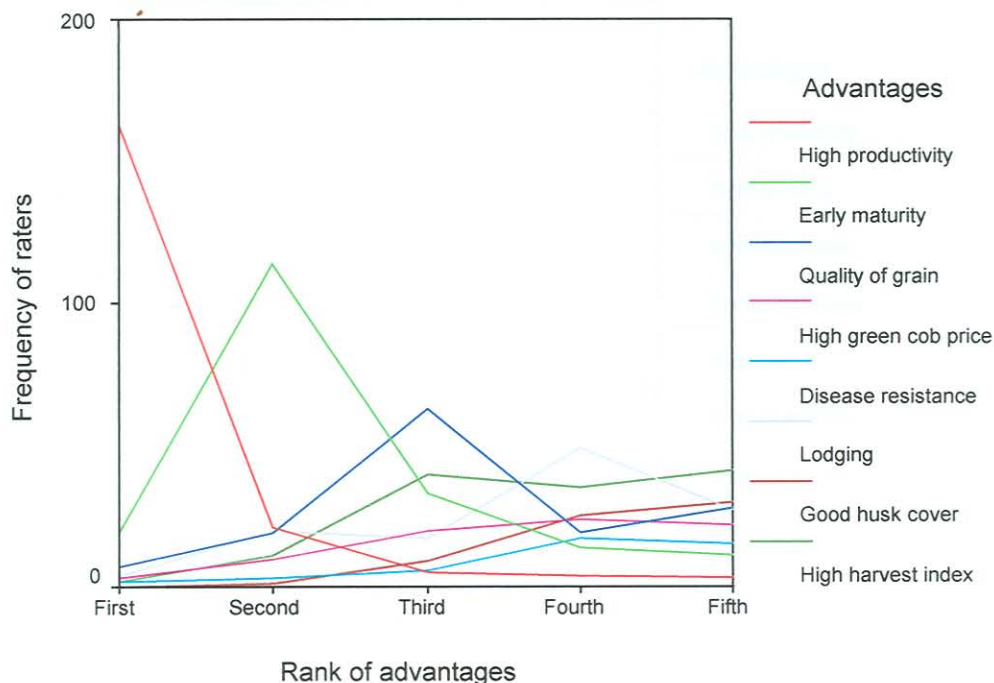
## Appendix 5.9 Continued...

Practice	Category	Total		Farming experience			Media		Modernity			Organization	
		N	Percent	Short	Medium	Long	Low	High	Low	Medium	High	Low	High
<b>Gutter</b>	No	31	15.5	16.2	14.9	15.4	19.7	13.4	14.0	16.9	15.3	16.2	11.1
	Poor	99	49.5	48.5	46.3	53.8	53.0	47.8	59.6	40.8	50.0	49.1	51.9
	Moderate	70	35.0	35.3	38.8	30.8	27.3	38.8	26.3	42.3	34.7	34.7	37.0
	Total	200	100	100	100	100	100	100	100	100	100	100.0	100
	Gamma				-0.035 (1.04) 4			0.225 (3.05) 2		0.056 (4.73) 4			0.088 (0.46) 2
	P			0.723 (0.902)			0.077 (0.218)		0.552 (0.316)			0.615 (0.790)	
<b>Floor</b>	Poor	104	52.0	52.9	58.2	44.6	62.1	47.0	50.9	49.3	55.6	50.9	59.3
	Moderate	66	33.0	30.9	29.9	38.5	25.8	36.6	35.1	36.6	27.8	34.1	25.9
	Good	30	15.0	16.2	11.9	16.9	12.1	16.4	14.0	14.1	16.7	15.0	14.8
	Total	200	100.0	100	100	100	100	100	100	100	100	100	100
	Gamma			0.080 (2.71) 4			0.251 (4.05) 2		-0.033 (1.45) 4			-0.123 (0.79) 2	
	P			0.429 (0.607)			0.054 (0.132)		0.745 (0.836)			0.507 (0.674)	
<b>Roof and side wall</b>	Poor	102	51.0	51.5	55.2	46.2	62.1	45.5	52.6	45.1	55.6	50.9	51.9
	Moderate	70	35.0	29.4	32.8	43.1	31.8	36.6	38.6	40.8	26.4	35.3	33.3
	Good	28	14.0	19.1	11.9	10.8	6.1	17.9	8.8	14.1	18.1	13.9	14.8
	Total	200	100	100	100	100	100	100	100	100	100	100	100
	Gamma			0.005 (4.40) 4			0.340 (7.12) 2		0.013 (5.20) 4			-0.006 (0.04) 2	
	P			0.962 (0.354)			0.007 (0.029)		0.899 (0.267)			0.972 (0.798)	
<b>Stall</b>	No	132	66.0	69.1	53.7	75.4	63.6	67.2	70.2	66.2	62.5	67.1	59.3
	Poor	43	21.5	17.6	31.3	15.4	24.2	20.1	21.1	21.1	22.2	20.2	29.6
	Moderate	25	12.5	13.2	14.9	9.2	12.1	12.7	8.8	12.7	15.3	12.7	11.1
	Total	200	100	100	100	100	100	100	100	100	100	100	100
	Gamma			-0.085 (8.02) 4			-0.057 (0.44) 2		0.116 (1.39) 4			0.119 (1.20) 2	
	P			0.426 (0.091)			0.691 (0.803)		0.294 (0.846)			0.534 (0.543)	
<b>Ecto parasite</b>	No	102	51.0	41.2	53.7	58.5	62.1	45.5	54.4	54.9	44.4	52.0	44.4
	100percent	98	49.0	58.8	46.3	41.5	37.9	54.5	45.6	45.1	55.6	48.0	55.6
	Total	200	100	100	100	100	100	100	100	100	100	100.0	100
	Gamma			-0.229 (4.27) 2			0.325 (4.87) 1		0.138 (1.94) 2			0.151 (0.53) 1	
		P			0.042 (0.118)			0.025 (0.118)		0.228 (0.379)			0.464 (0.464)

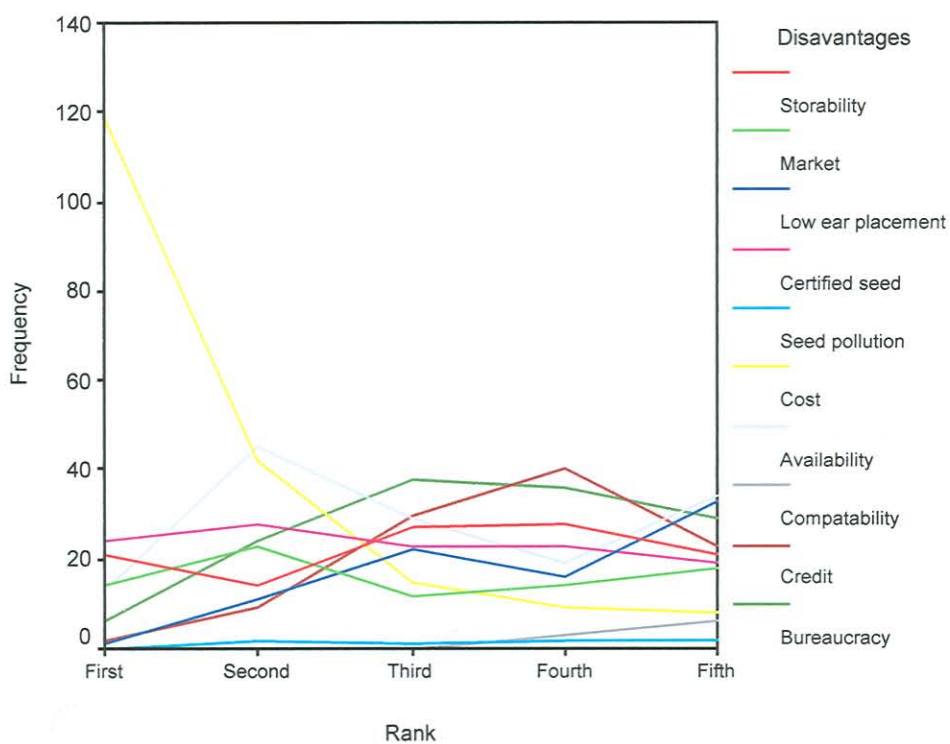
Appendix 5.9 Continued...

Practice	Category	Total		Farming experience			Media		Modernity			Organization	
		N	Percent	Short	Medium	Long	Low	High	Low	Medium	High	Low	High
<b>Indo Parasite</b>	Not at all	54	27.0	26.5	32.8	21.5	40.9	20.1	24.6	32.4	23.6	28.9	14.8
	<100percent	25	12.5	13.2	9.0	15.4	22.7	7.5	10.5	18.3	8.3	13.3	7.4
	100percent	121	60.5	60.3	58.2	63.1	36.4	72.4	64.9	49.3	68.1	57.8	77.8
	Total	200	100	100	100	100	100	100	100	100	100	100	100
	Gamma				0.047 (2.84) 4			0.541 (24.79) 2		0.055 (6.63) 4			0.405 (3.90) 2
P				0.649 (0.589)			0.000 (0.000)		0.604 (0.157)			0.034 (0.142)	
<b>Byproduct</b>	Sometimes	29	14.5	16.2	16.4	10.8	25.8	9.0	14.0	16.9	12.5	14.5	14.8
	Regularly (Some)	140	70.0	66.2	70.1	73.8	72.7	68.7	77.2	70.4	63.9	72.8	51.9
	Regularly (All)	31	15.5	17.6	13.4	15.4	1.5	22.4	8.8	12.7	23.6	12.7	33.3
	Total	200	100	100	100	100	100	100	100	100	100	100	100
	Gamma				0.037 (1.59) 4			0.676 (21.14) 2		0.206 (6.38) 4			NC
P				0.752 (0.810)			0.000 (0.000)		0.070 (0.172)				
<b>Processed feed</b>	Sometimes	36	18.0	19.1	16.4	18.5	39.4	7.5	19.3	22.5	12.5	20.2	3.7
	Regularly (Some)	101	50.5	52.9	62.7	35.4	48.5	51.5	43.9	52.1	54.2	53.2	33.3
	Regularly (Most)	63	31.5	27.9	20.9	46.2	12.1	41.0	36.8	25.4	33.3	26.6	63.0
	Total	200	100	100	100	100	100	100	100	100	100	100	100
	Gamma				0.162 (12.24) 4			0.679 (36.87) 2		0.037 (4.25) 2			0.635 (15.17) 2
P				0.119 (0.016)			0.000 (0.000)		0.713 (0.374)			0.000 (0.001)	
<b>Legumes</b>	Not at all	122	61.0	57.4	56.7	69.2	62.1	60.4	68.4	50.7	65.3	59.0	74.1
	Sometimes	54	27.0	27.9	28.4	24.6	28.8	26.1	26.3	33.8	20.8	28.3	18.5
	Regularly (Some)	24	12.0	14.7	14.9	6.2	9.1	13.4	5.3	15.5	13.9	12.7	7.4
	Total	200	100	100	100	100	100	100	100	100	100	100	100
	Gamma				-0.167 (4.02) 4			0.059 (0.83)		0.052 (7.30) 4			-0.307 (2.25)
P				0.105 (0.403)			0.669 (0.403)		0.617 (0.121)			0.111 (0.324)	

**Appendix 6.1 a Rank order position of perceived relative advantages of improved maize cultivars**

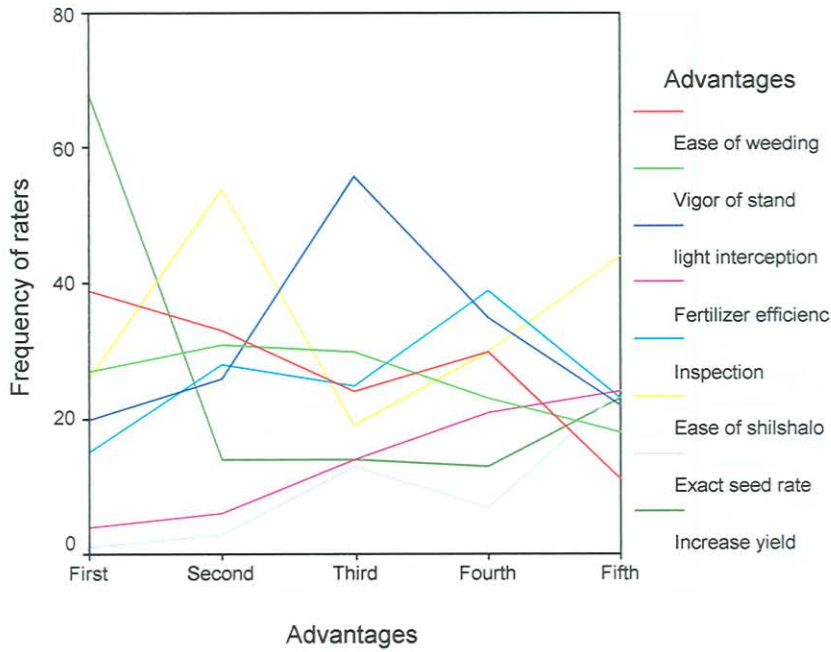


**b) Rank order position of perceived relative disadvantages of improved maize cultivars**

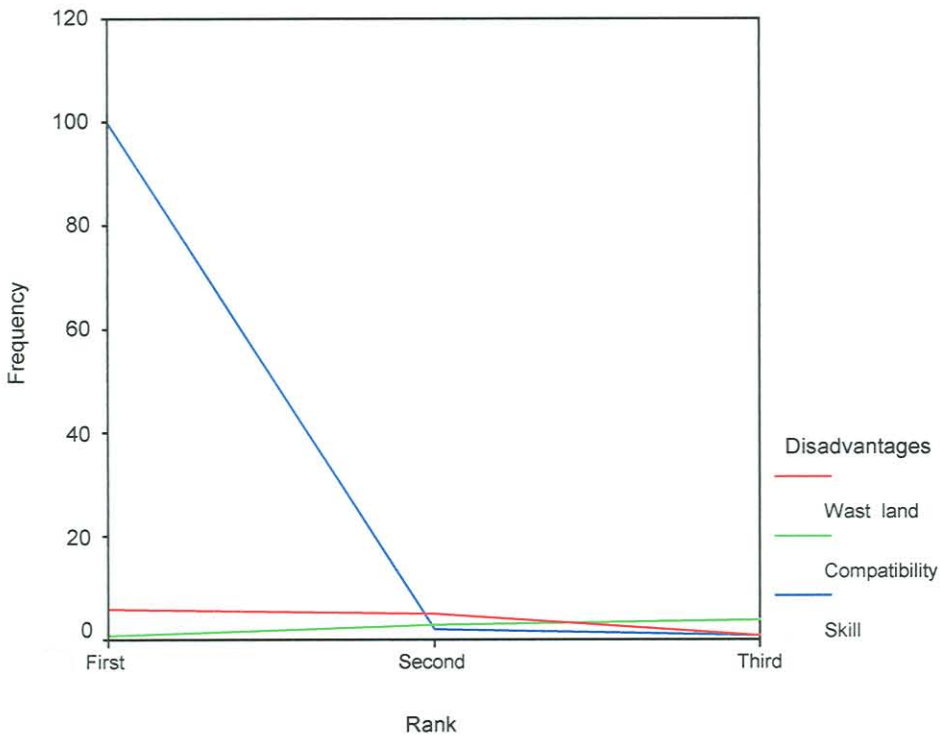


Appendix 6.2a

rank order position of perceived relative advantages of line planting

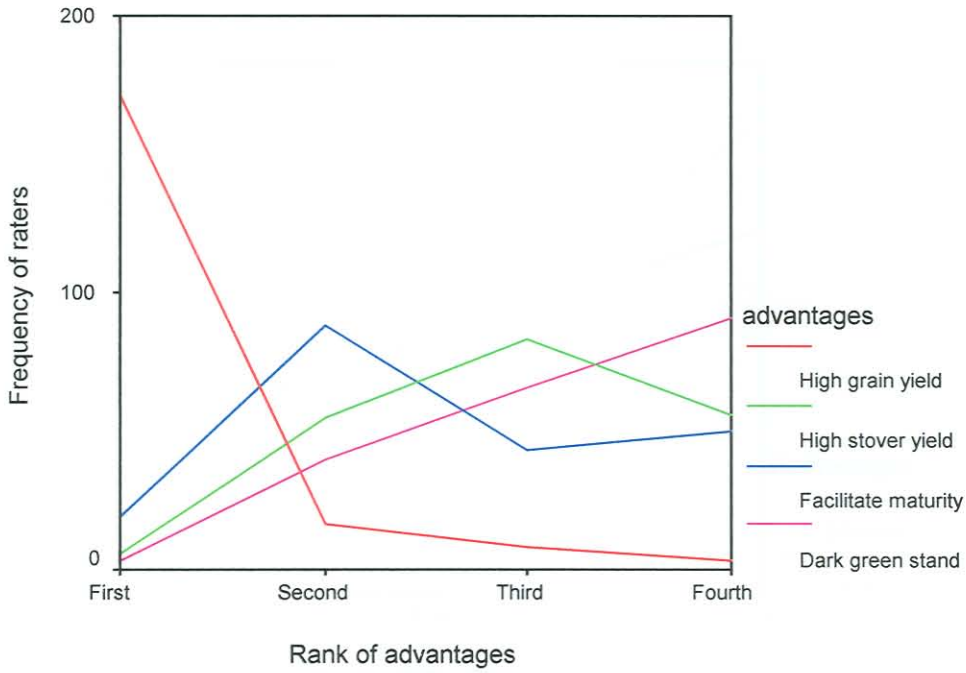


b Rank order position of perceived relative disadvantages of line planting

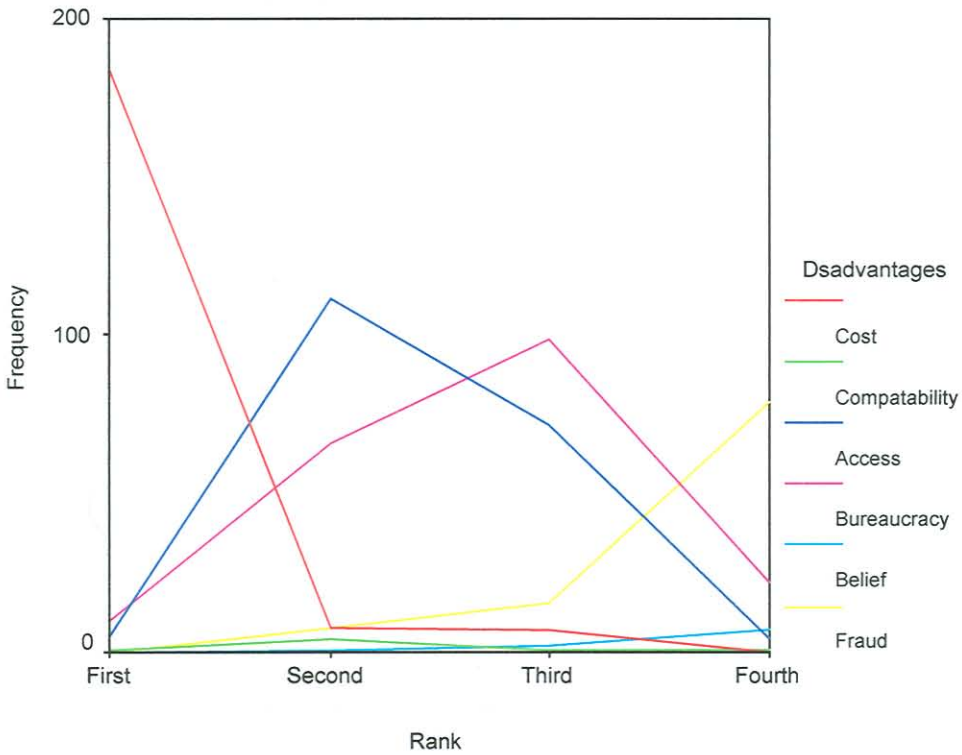




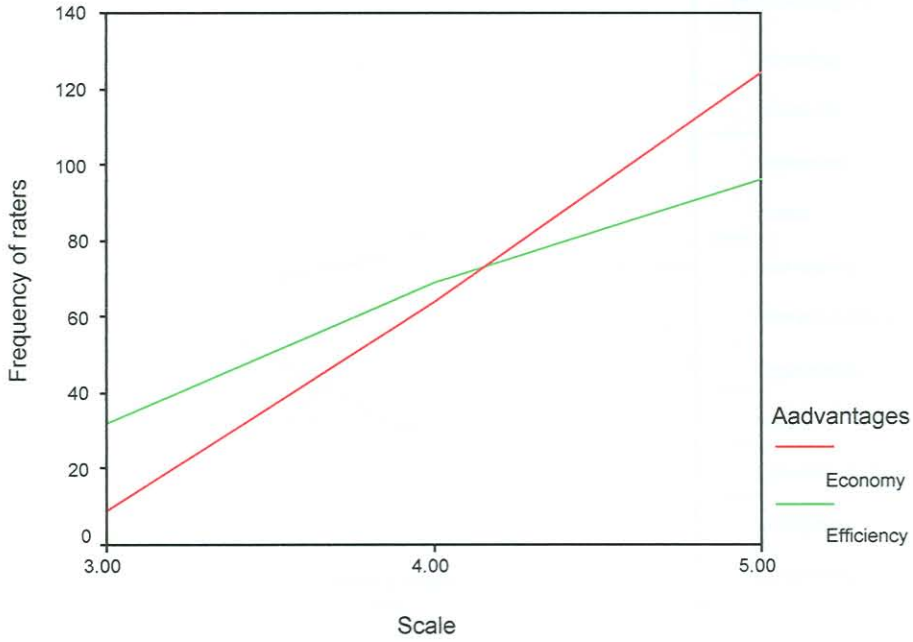
**Appendix 6.3a rank order position of perceived relative advantages of fertilization**



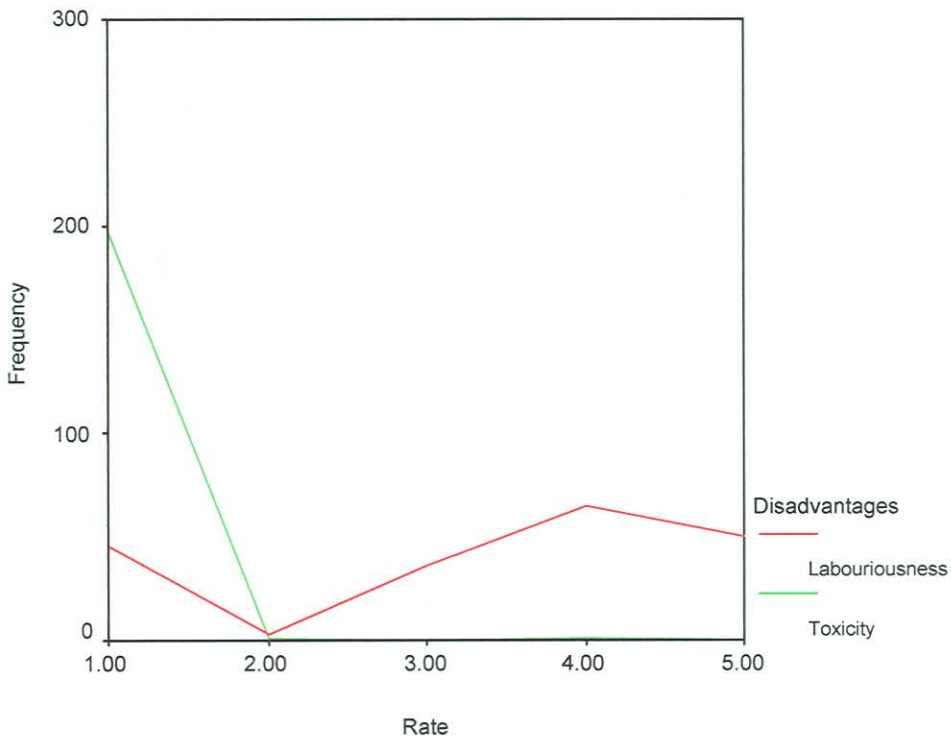
**b Rank order position of perceived relative disadvantages of fertilization**



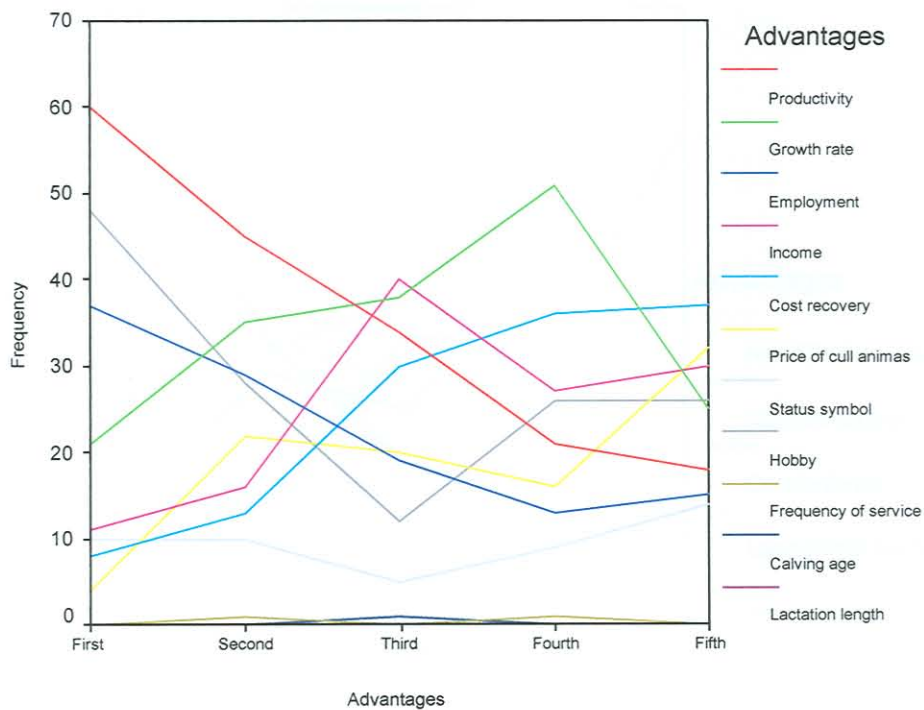
**Appendix 6.4a A five-point scale rank position of perceived relative advantages of spot application**



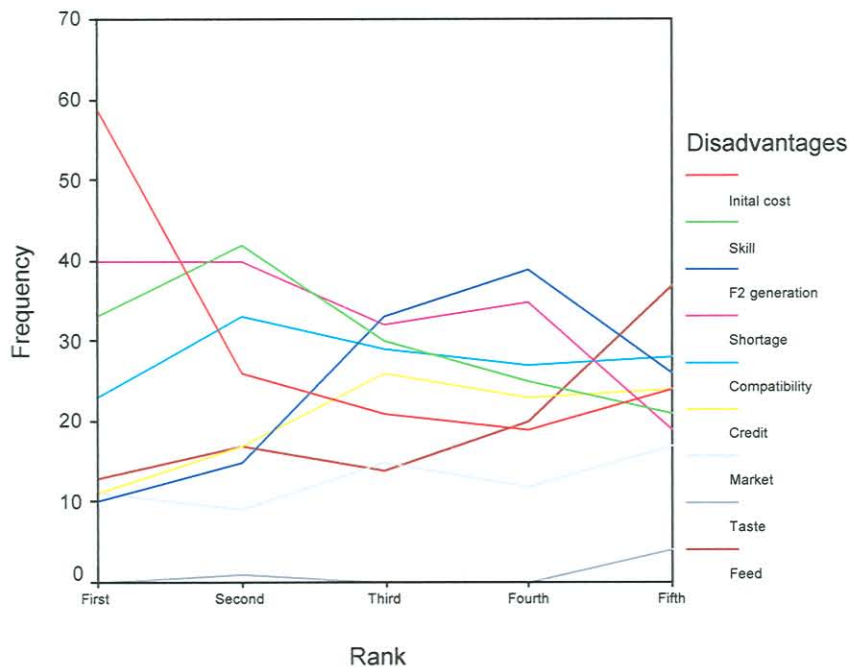
**b A five-point scale rank order position of perceived relative disadvantages of spot application**



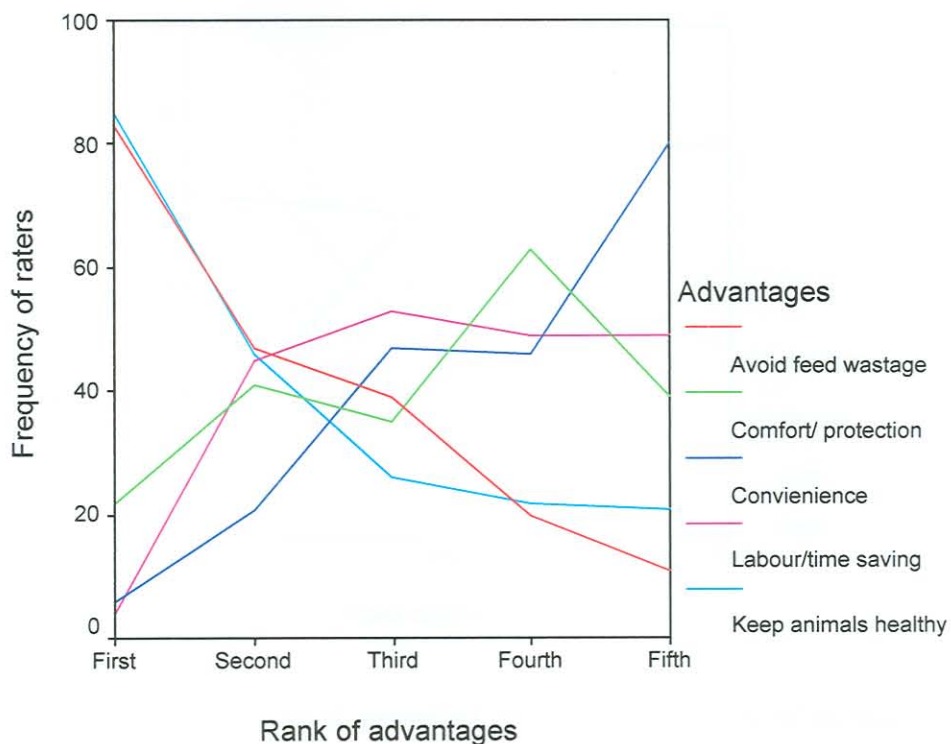
**Appendix 6.5a Rank order position of perceived relative advantages of improved dairy breeds**



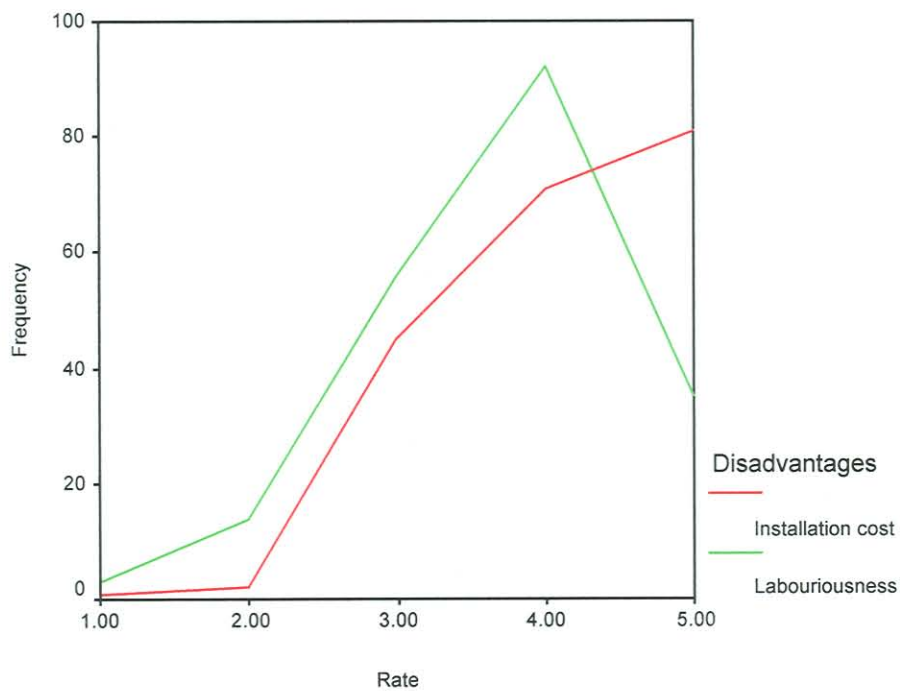
**b Rank order position of perceived relative disadvantages of improved breed**



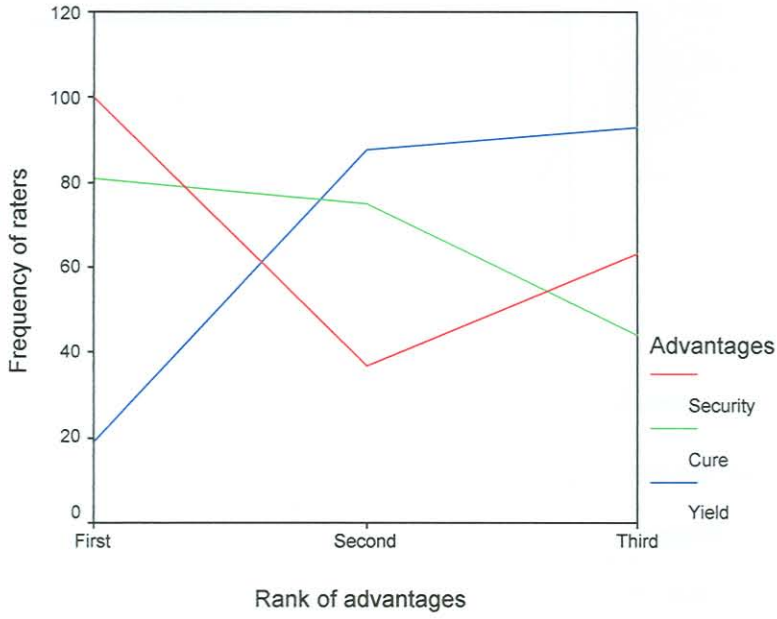
**Appendix 6.6a Rank of perceived relative advantages of improved housing**



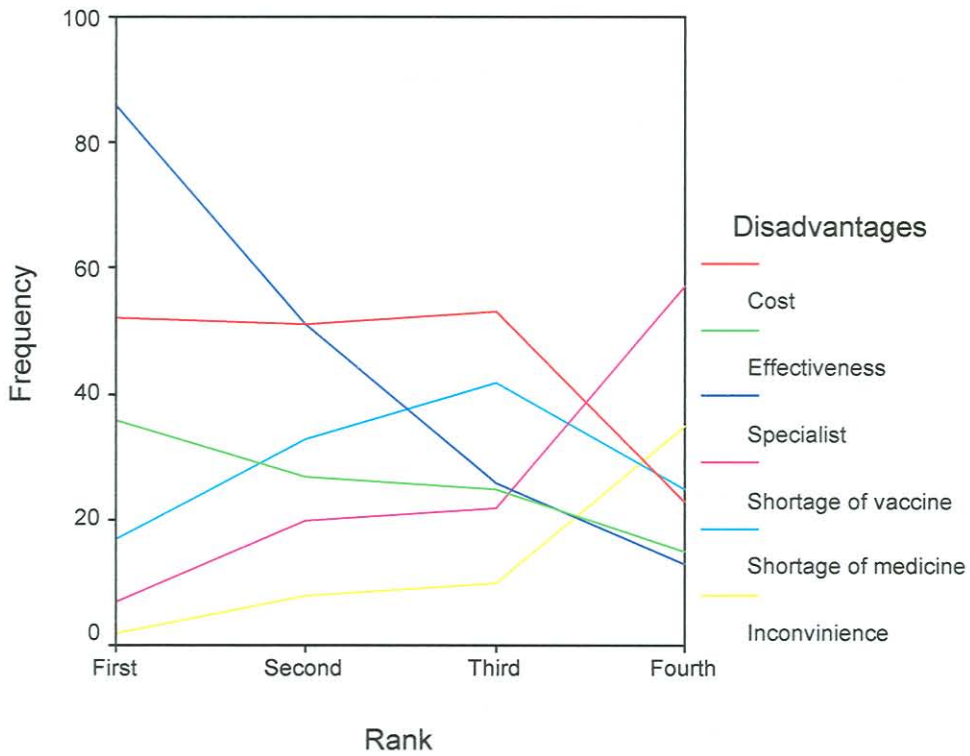
**b A five-point scale rank order position of perceived relative disadvantages of improved housing**



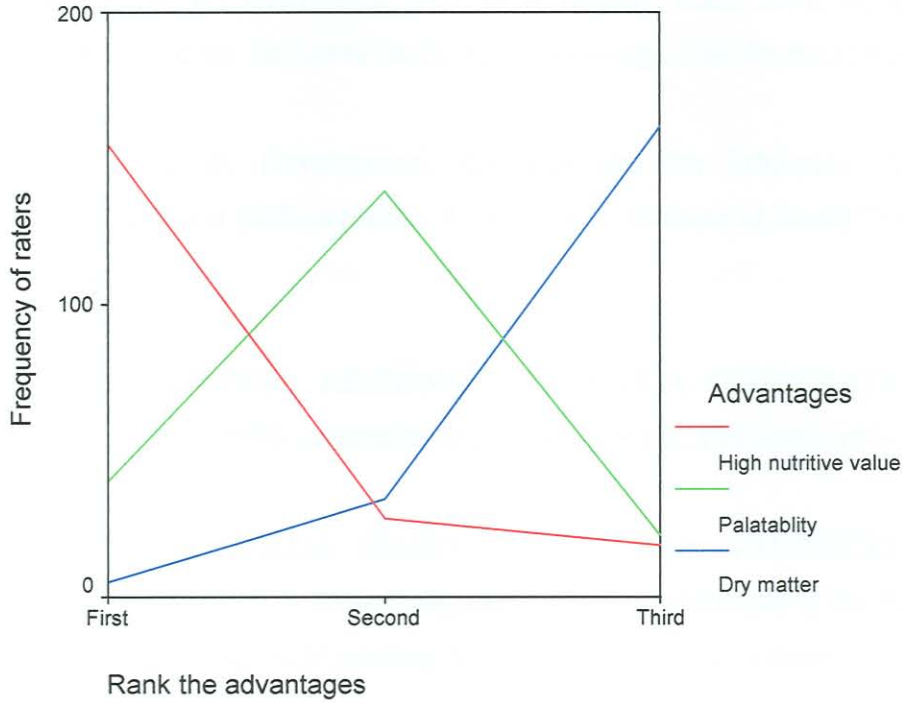
**Appendix 6.7a Rank order position of perceived relative advantages of recommended medical practices**



**b Rank order position of perceived relative disadvantages of medical practices**



**Appendix 6.8a Rank order position of perceived relative advantages of recommended feed practices**



**b Rank order position of perceived relative disadvantages of recommended feed practices**

